

REMARKS

This following is in response to the Office Action mailed on April 30, 2007. No new matter is added. Claims 1-12 are pending.

§102(b) Rejections:

Claims 1-5 are rejected as being anticipated by Kaneko (JP Patent No. 61-145743). This rejection is traversed.

Claim 1 is directed to a deficiency detecting apparatus that detects deficiencies on an information medium that are unable to be recorded or reproduced when an information signal is recorded / reproduced with respect to the information medium using a light beam generated by a laser light source that requires, among other features, a deficiency detecting section for comparing a threshold value determined by calculating a value of the emitting power of the laser light source adjusted by a power adjusting section with a value corresponding to reflected light that is the light beam reflected by an information layer of the information medium. Thus a defect can be detected even if the optimal emission power of the laser light source varies.

Kaneko does not disclose or teach or suggest these features. Kaneko is directed to an optical disk device that converts a control signal (2) during a test program prior to data reproduction or data recording into a predetermined detection limit level (5) and regulates the output power thereafter to this level (see page 6, lines 18-22). Specifically, the level-switching circuit (11) converts the level to a detection restriction level (5) corresponding to the reproduction level corresponding to the position (b) deviated by an amplitude of $\pm 0.3 \mu\text{m}$ from the center of the concerned track. As shown in Figure 4, the reproduction level is the level shown by (b). Kaneko then detects a defect by comparing this preset detection limit level (5) with the detection signal (1) of the photodetector (8) (see page 7, lines 3-14). Nowhere does Kaneko disclose or suggest that the detection limit level (5) of an optical disk device is determined by calculating the emitting power of the laser light source adjusted by a power adjusting section. In contrast, Kaneko uses a predetermined detection limit level (5) that is set, regardless of any variances in the power of the laser light source. Thus, detection limit level (5) is a fixed value according to how far from the center of the concerned track that scanning of the reproduction mode signal (2) is

performed, not a variable value determined by calculating a value of the emitting power of the laser light source. Accordingly, if the optimal emission of the laser light source varies, the predetermined detection limit level (5) of Kaneko may not detect a defect. For at least these reasons claim 1 is not suggested by Kaneko. Claims 2-5 depend from claim 1 and should be allowed for at least the same reasons.

§103(a) Rejections:

Claim 6 is rejected as being unpatentable over Kaneko in view of Kawashima (US Patent Publication No. 2003/0133378). This rejection is traversed. Claim 6 depends from claim 1 and should be allowable for at least the same reasons described above. Applicants do not concede the correctness of this rejection.

Claims 7-11 are rejected as being unpatentable over Kaneko in view of Hiroshi (JP Patent Publication No. 09-115142). This rejection is traversed.

Claim 7 is directed to a deficiency detecting apparatus that requires, among other features, a deficiency detecting section for amplifying a signal corresponding to reflected light that is the light beam reflected by an information layer of the information medium at an amplification factor determined by calculating a value of the emitting power of the laser light source adjusted by the power adjusting section so as to generate a signal for amplified reflected light amount. The deficiency detecting section also compares a value corresponding to the signal for the amplified reflected light amount with a predetermined threshold value and detects the deficiencies on the information layer in accordance with a result of the comparison.

The combination of Kaneko and Hiroshi does not teach or suggest these features. The rejection relies on Kaneko to include an amplification factor determined by calculating a value of the emitting power of the laser light source adjusted by the power adjusting section. Kaneko is directed to an optical disk device that converts the control signal (2) during a test program prior to data reproduction or data recording into the predetermined detection limit level (5) and regulates the output power to this level. Kaneko then detects a defect by comparing this preset detection limit level (5) with the detection signal (1) of the photodetector (8) (see page 6, lines 18-22). Specifically, the level-switching circuit (11) converts the level to a detection restriction level (5).

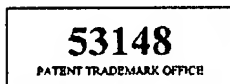
corresponding to the reproduction level corresponding to the position (b) deviated by an amplitude of $\pm 0.3 \mu\text{m}$ from the center of the concerned track. As shown in Figure 4, the reproduction level is the level shown by (b). Kaneko then detects a defect by comparing this preset detection limit level (5) with the detection signal (1) of the photodetector (8) (see page 7, lines 3-14). Nowhere does Kaneko teach or suggest that the detection limit level (5) of an optical disk device is determined by calculating the emitting power of the laser light source adjusted by a power adjusting section. In contrast, Kaneko uses a predetermined detection limit level (5) that is set, regardless of any variances in the power of the laser light source. Thus, detection limit level (5) is a fixed value according to how far from the center of the concerned track that scanning of the reproduction mode signal (2) is performed, not a variable value determined by calculating a value of the emitting power of the laser light source. Accordingly, if the optimal emission of the laser light source varies, the predetermined detection limit level (5) of Kaneko may not detect a defect.

Hiroshi does not overcome these deficiencies. Hiroshi is provided in the rejection merely to teach an amplifier for amplifying a signal corresponding to reflected light. For at least these reasons claim 7 is not suggested by the combination of Kaneko and Hiroshi. Claim 8-11 depends from claim 7 and is allowable for at least the same reasons.

Claim 12 is rejected as being unpatentable over Kaneko in view of Hiroshi and further in view of Kawashima. This rejection is traversed. Claim 12 depends from claim 7 and should be allowable for at least the same reasons described above. Applicants do not concede the correctness of this rejection.

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CENTRAL FAX CENTER****JUL 24 2007**Conclusion:

Applicants respectfully assert claims 1-12 are now in condition for allowance. In view of the above, early issuance of a notice of allowance is solicited. Any questions regarding this communication can be directed to the undersigned attorney, Curtis B. Hamre, Reg. No. 29,165 at (612) 455-3802.



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Respectfully submitted,

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